

REMARKS

Claims 14-15, 19-20, and 23 have been canceled. Claims 1-13, 16-18, 21-22, and 24-34 remain pending in the application. Claims 1-12 have been withdrawn from consideration. Applicants amended claims 13, 18, and 22 to clarify the invention. Applicants refer to Figs. 1-6, 7A, 7B, and their corresponding description in the specification for exemplary embodiments and support for the claim amendments. Claims 16-17 and 21 were amended to correct their dependencies. No new matter has been added.

The Examiner has apparently failed to address claims 24-34 that were added by a Supplemental Preliminary Amendment filed on June 2, 2005. Applicants respectfully request that the Examiner review and address these claims in a non-final Office Action.

Claim 13-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,991,311 to Long et al. in view of U.S. Patent No. 4,756,007 to Qureshi et al. Applicants amended claims 13, 18, and 22 in a good faith effort to further clarify the claimed invention as distinguished from the cited prior art references. The Examiner's rejection is respectfully traversed.

In responding to the Examiner's "Response to Arguments," Applicants respectfully submit that Applicants did not argue against Qureshi et al. individually, rather that Qureshi et al. do not contribute to the combination of references in the manner characterized by the Examiner, such that the combination of Long et al. and Qureshi et al., even if obvious to one skilled in the art, would fail to teach or suggest the claimed invention.

Applicants respectfully submit that it would not be obvious to one skilled in the art to combine Long et al. and Qureshi et al. in the manner proposed by the Examiner. Contrary to the Examiner's interpretation, the cited portions of Long et al. do not disclose distributing any timing

information that is determined at the office side to any modem outside of the office side or any device on the subscriber side. (See, e.g., Fig. 12, and col. 11, line to col. 12, line 4 of Long et al.) The cited portions of Long et al. merely describe a TDD-xDSL system in which TCM-DSL symbols are transmitted from the central office in synchronization with TCM-ISDN transmissions and are controlled not to be transmitted during the NEXT period of the TCM-ISDN. Thus, the synchronization is performed strictly at the central office by and between a TCM-DSL line card to TCM-ISDN line cards, as illustrated in Figs. 6, 12, and their corresponding description in Long et al. Therefore, the cited portions of Long et al. do not describe any such synchronization between the central office and any subscriber-side device. Furthermore, as Applicants have previously stated, the cited portions of Qureshi et al. merely describe synchronization for identifying subsequent training sequences in conventional dial-up modems. Therefore, such portions of Qureshi et al. do not disclose specifying a crosstalk interval. Accordingly, nowhere in the cited portions of Long et al. and Qureshi et al. is there any motivation or suggestion to combine the references in the manner proposed by the Examiner. Nowhere in the cited portions of Long et al. is there any disclosure or suggestion of distributing timing information outside the central office to a subscriber side, and nowhere in the cited portions of Qureshi et al. is there any disclosure or suggestion of including any such timing information in a training signal to a subscriber-side device. It would, therefore, be improper hindsight to combine the scheme for synchronizing central office transmissions in a TDD-xDSL system described in Long et al. with the technique for setting a communication rate for a dial-up modem described in Qureshi et al. to yield the claimed invention.

Even assuming, arguendo, that it would be obvious to one skilled in the art to combine the references, the combination would at most disclose synchronized TCM-DSL and TCM-ISDN

line cards in a central office, and a training signal for determining a transmission speed of a subscriber-side dial-up modem. The combination would still fail to teach or suggest

"incorporating timing information, which specifies an interval in which effects of crosstalk from a neighboring line are received, in a training symbol sequence at time of training carried out prior to data communication; and
transmitting the training symbol sequence in which the timing information is incorporated from the device in the office side to the device on the subscriber side,
wherein the timing information is incorporated in the training symbol sequence by changing the phase between adjacent training symbols by the device on the office side and a phase-change point in the training symbol sequence is detected by the device on the subscriber side and a timing which is a set time before or a set time after the phase-change detection time is adopted as the start timing of said interval," as recited in amended claim 13. (Emphasis added)

Applicants, thus, respectfully submit that claim 13, together with claims 16-17 dependent therefrom, is patentable over Long et al. and Qureshi et al., individually and in combination, for at least the foregoing reasons. Independent claims 18, 22, 24-27, and 31 include limitations similar to those of claim 13 cited and discussed above, and are, therefore, together with claims 21, 28-30, and 32-34 dependent therefrom, respectively, patentable over the cited prior art references for at least the same reasons.

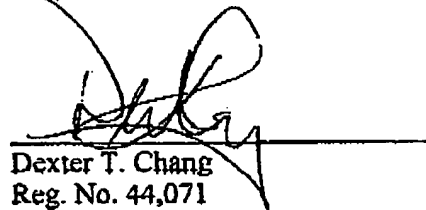
The above statements on the disclosures in the cited references represent the present opinions of the undersigned attorney. The Examiner is respectfully requested to specifically indicate those portions of the respective reference that provide the basis for a view contrary to any of the above-stated opinions.

Applicants appreciate the Examiner's implicit finding that the additional U.S. patents made of record, but not applied, do not render the claims of the present application unpatentable, whether these references are considered alone or in combination with others.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,



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